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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,489	09/25/2006	Cyrill Linnot	0543-1016	1031
465 7590 05/04/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER KEMMERLE III, RUSSELL J	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 05/04/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,489

Applicant(s)

LINNOT ET AL.

Examiner

RUSSELL J. KEMMERLE III

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-44, 67 and 68 is/are pending in the application.
- 4a) Of the above claim(s) 67 and 68 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 10 December 2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

Newly submitted claims 67 and 68 are directed to an invention that is independent or distinct from the invention originally claimed for the reasons listed in the Requirement for Restriction mailed on 27 March 2008 as the difference between Groups I and II. Newly submitted claims 67 and 68 would fall into Group II, and Applicants elected, and have already received an action on the merits on, Group I.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 67 and 68 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 recites that one of the interior or exterior portion be permeable to the liquid, then later recites that the interior portion be impermeable to the liquid. It appears

to be impossible that the interior portion could be both permeable and impermeable to the same liquid. For the purpose of this Office action it was assumed that the exterior portion is permeable, while the interior portion is impermeable.

Further, the term "stiff material" in claim 34 is a relative term which renders the claim indefinite. The term "stiff material" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear how stiff a material would have to be in order to meet this limitation.

Claims 35-44 are rejected based on their dependence from claim 34.

Claim Rejections - 35 USC § 102

Claims 34, 35, 37-39, 42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner (DE 10130186, based on the English abstract submitted by Applicant).

Wagner discloses a mold for slip casting a ceramic article where a slurry is poured into a porous body and a inflatable body is introduced into the slurry and inflated creating a hollow area in the ceramic being formed while a wall is delimited. This mold includes a permeable exterior portion as well as an impermeable interior portion (a liner). Wagner discloses a device holding the inner portion that could be considered a support (shown as reference number 9 in the figures) which appears to be made of a stiff material as it is able to support the liner against the pressure of the suspension until the green body is formed. Therefore, at least one area of the interior portion (the top

where the support is present) would have sufficient inherent stiffness to delimit a wall of the preform while the slurry is cast in to the mold.

Referring to claim 35, Wagner shows the distance between the interior inflated body and the exterior mold as being close to constant across most of the mold (Fig 3). Since the term "substantially constant" is not defined in any greater detail by the current specification, this is assumed to meet the limitation of claim 35.

Referring to claim 37, Wagner discloses a slip casting type of mold, which one of ordinary skill in the art would understand means it would absorb liquid in a manner similar to plaster (and in fact often is plaster).

Referring to claim 38, the inner portion is described as balloon like and is inflated (deformed) to achieve the final shape used to form the body.

Referring to claim 39, the inner portion of Wagner is deflated (removed toward the interior) in order to remove it after the article is formed.

Referring to claim 42, the inner portion of Wagner is removed by deflating which causes it to come unstuck from the article being formed.

Referring to claim 44, the inner portion of Wagner would inherently have to have an air injection hole in order to perform the inflation operation described.

Claim Rejections - 35 USC § 103

Claims 36, 40, 41 and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner, which is relied upon as discussed above.

Referring to claim 36, while Wagner does not specifically disclose the dimensions of the ceramic article created, it would be within the ability of one of ordinary skill in the art to adjust the distance between the inner portion and the outer mold in order to create an article of the desired size according to methods commonly used and understood.

Referring to claims 41 and 43, it would be obvious to one of ordinary skill in the art that the inner portion should be made from a material which is inert to the slurry to prevent any reaction from occurring and resulting in undesirable properties in the article formed, and silicone is a material known to be inert to ceramic slurries and capable of the deformation required by Wagner.

Referring to claim 40, the selection of the materials discussed above would meet the limitations of claim 40.

Response to Arguments

Applicant's arguments with respect to claims 34-44 have been considered but are moot in view of the new ground(s) of rejection. To the extent Applicant's arguments may apply to the new grounds of rejection, they have been fully considered but they are not persuasive.

Applicant first argues that Wagner does not disclose that at least one of the interior or exterior portions is deformable.

As discussed above, much of the interior portion is an inflatable balloon like structure, which would have to be deformable in order to work.

Applicant's next argue that, unlike Wagner, the current invention requires no external pressure (such as an inflatable balloon) to confer this stiffness on the mold.

It is first noted that there is nothing in the claims that limits the current invention to such a configuration, and that the claims would cover using external pressure such as in Wagner as long as at least one area of the interior portion has sufficient stiffness without such external pressure. It is further noted that, as discussed above, Wagner does disclose at least a portion of the interior portion being supported by a stiff material and is able to delimit a wall of the preform in that area without any external pressure.

Conclusion

Applicant's amendment necessitated any new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RUSSELL J. KEMMERLE III whose telephone number is (571)272-6509. The examiner can normally be reached on Monday through Thursday, 7:00-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. J. K./
Examiner, Art Unit 1791

/Eric Hug/
Primary Examiner, Art Unit 1791